

**REMARKS**

Claims 1-16 are all the claims pending in the application.

**I. Claim Rejections: 35 USC §103**

The Examiner rejected claims 1, 8, 9, 10, 13 and 14 under 35 USC §103(a) as allegedly being unpatentable over Nong (US 2003/0123468) in view of Merchant et al (US 5,408,463).

**Claims 1**

Specifically with regard to claim 1, the Examiner stated that:

“Nong may not have specifically disclosed a single memory unit organized as a number of physical memory queues...Merchant teaches a single buffer memory unit comprising a plurality of N queues wherein the buffer memory unit stores incoming cells from a plurality of inputs 112<sub>1-N</sub> and forwards cells to outputs 114<sub>1-N</sub>, wherein each individual input corresponds to a corresponding queue which, on a one-to-one basis, outputs to a corresponding output of the buffer memory unit (col. 2, lines 53-60, col. 10, lines 14-40).”

*Office Action*, p. 3.

The Applicant respectfully disagrees, and submits that Merchant fails to teach “a memory unit organized as a number of physical memory queues,” where “each queue is assigned to an output port.” Merchant provides no indication, in the cited sections, Figures or elsewhere, that the memory unit is organized into a number of physical memory queues, such that *each queue is assigned to an output port*. Col. 2, lines 53-60, cited by the Examiner, simply discloses that the

switch modules have a plurality of inputs 112-1 through 112-N that are supplied to outputs 114-1 through 114-N. The Examiner then cites to claim 1, at col. 10, lines 14-40, presumably to support the Examiner’s statement that Merchant teaches where each individual input corresponds to a corresponding queue that outputs to a corresponding output on a one-to-one basis. However, a careful reading of the cited section of claim 1 reveals that the “one-to-one” correspondence is not related to the input and output queues of the same memory unit, but rather that the same cells are being “dual-fed” to *two different memory units*—the first memory unit and second memory unit, such that the cells being fed to each of the two memory units correspond on a one-to-one basis to each other. Specifically, the purpose of the invention of Merchant is resynchronization of the *two separate memory units*. Therefore, the “one-to-one” correspondence is to ensure resynchronization between the first memory unit and the second memory unit.

As such, Merchant still fails to disclose the invention embodied in claim 1, where a physical memory queue is “assigned to an output port.” As neither Nong nor Merchant disclose the memory unit described in claim 1, the Applicant respectfully requests that the rejection under 35 USC §103 be withdrawn.

**Claims 8, 9, 10, 13 and 14**

The Applicant further submits that claims 8, 9, 10, 13 and 14 are allowable for at least the same reasons presented above with regard to claim 1.

**Claim 5**

The Examiner rejected claim 5 under 35 USC § 103(a) as being unpatentable over Nong in view of Merchant, as applied to claim 1, and in further view of Knorpp, et al (US 4,947,387).

The Applicant refers the Examiner to the arguments presented above with regard to claim 1, and submits that claim 5 is allowable at least based on its dependency to claim 1.

**Claims 2 and 15**

The Examiner rejected claims 2 and 15 under 35 USC §103 (a) as being unpatentable over Nong in view of Merchant, as applied to claims 1 and 14, and in further view of Bohm, et al. (US 2002/0027816 A1).

The Applicant refers the Examiner to the arguments presented above with regard to claim 1, and submits that claims 2 and 15 are allowable at least based on their dependencies to claims 1 and 14, respectively.

**Claim 3**

The Examiner rejected claim 3 under 35 USC §103(a) as allegedly being unpatentable over Nong in view of Merchant and Bohm, as applied to claim 2, and further in view of Strehler (US 5,122,984). The Examiner specifically stated that Nong, Merchant and Bohm disclose the claimed invention except for mentioning resizable memory cells, Strehler teaches the concept of sizable memory cells.

The Applicant submits that the combination of Nong, Merchant, Bohm and Strehler fail to teach claim 3, as Strehler does not teach the concept of resizing the memory cells to redistribute buffer capacity in the memory queues. The Examiner cited to col. 1, lines 28-38 of Strehler, stating that “Strehler teaches the concept of sizable (re-sizable) memory cells.” *Office Action*, p. 6. However, the term “sizable” in Strehler has a completely different meaning than

“resizable” as used in claim 3. Strehler states, at line 28, “*Sizable* and complex computing systems generally work with large amounts of data, and therefore require a *sizable* memory with a large number of memory cells.” (emphasis added). “*Sizable*” is an *adjective* to describe the computing system or memory as “fairly large” in size. In contrast, memory units that are “resizable,” as used in claim 3, refers to the *verb* “*resize*,” which refers to the action of *changing the number of memory cells assigned to a memory queue during operation*, as described in the Specification on page 11 and illustrated in Figure 2. Strehler does not disclose *resizing* memory queues by changing the number of memory cells in a particular queue, as described in claim 3.

In addition, the Applicant points out that Merchant is focused on synchronizing two separate memory cells in order to match data in both cells. Resizing memory cells would defeat the purpose of synchronization and make synchronization difficult.

Therefore, the combination of Nong, Merchant, Bohm and Strehler fail to teach the invention of claim 3.

#### **Claim 4**

The Examiner rejected claim 4 under 35 USC § 103(a) as being unpatentable over Nong in view of Merchant, as applied to claim 1, and in further view of Kothary (US 6,249,528 B1).

The Applicant refers the Examiner to the arguments presented above with regard to claim 1, and submits that claim 4 is allowable at least based on its dependency to claim 1.

**Claim 6**

The Examiner rejected claim 6 under 35 USC § 103(a) as being unpatentable over Nong in view of Merchant and Knorpp, as applied to claim 5, and in further view of Dooley, et al. (US 2002/0163922 A1).

The Applicant refers the Examiner to the arguments presented above with regard to claim 1, and submits that claim 6 is allowable at least based on its dependency to claim 1.

**Claim 7**

The Examiner rejected claim 7 under 35 USC § 103(a) as being unpatentable over Nong in view of Merchant and Knorpp, as applied to claim 5, and in further view of Fujii, et al (US 2003/0014264 A1).

The Applicant refers the Examiner to the arguments presented above with regard to claim 1, and submits that claim 7 is allowable at least based on its dependency to claim 1.

**Claims 11 and 12**

The Examiner rejected claims 11 and 12 under 35 USC § 103(a) as being unpatentable over Nong in view of Merchant, as applied to claim 1, and further in view of Liebowitz, et al (US 5,757,784).

The Applicant refers the Examiner to the arguments presented above with regard to claim 1, and submits that claims 11 and 12 are allowable at least based on its dependency to claim 1.

**Claim 16**

The Examiner rejected claim 16 under 35 USC § 103(a) as being unpatentable over Nong in view of Merchant, as applied to claim 1, and in further view of Moriwaki, et al (EP 0918419 A2).

The Applicant refers the Examiner to the arguments presented above with regard to claim 1, and submits that claim 16 is allowable at least based on its dependency to claim 1.

**II. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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